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Determinants Dividen Payout Ratio and Its Impact on Decitions Investment: A case study on a mining company listed in Indonesia Stock Exchange

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ABSTRACT

Purpose – This study aims to analyze the effect of financial performance on investment decisions with dividend policies (DPR) as intervening variables in mining sector companies listed on the Indonesia Stock Exchange for 2017 to 2020.
Methodology/approach – The sample in this study consisted of 13 mining sector companies listed on the Indonesia Stock Exchange (IDX) in the 2017 to 2020 period which was selected based on certain criteria using the purposive sampling method. Analysis of the data used in this study is a multiple Liniear regression analysis (T test and F test) which is processed using Eviews 11.0.
Findings – It was found that . the multiple regression models used in this study, the results of partial testing (T test) showed that only two variables namely ROA, and DER with probability of 0.0006 and the most dominant tstatistics were 3,694806 and inflation rates that had a significant effect on investment decisions. In addition, simultaneously (F test) shows that ROA, CR, DER, FCF, jointly affects investment decisions.
Novelty/value – Since dividend policy affects investment decisions, it is very important to know the factors that influence dividend policy.

INTRODUCTION

Investment is a commitment to invest funds over a certain period to obtain future payments as compensation for investors for the time during which the funds are invested, the expected inflation rate and the uncertainty of future payments. The purpose of *return* to meet the prosperity of investors *return* on an investment is measured by *return* received in a certain period, usually one year. Investors invest some of their funds for the future and when that time comes, investors can get a return according to their strategy so that the results can be as they expect, be it lower or higher. One of the expected results is the profit obtained from the capital article in the form of capital gains or dividends.

The use of this mining company aims to measure and see what influence motivates mining companies to distribute dividends when the company experiences losses or profits, so that they are interested in investing. Dividends distributed by the company can be in the form of cash dividends – meaning that each shareholder is given cash dividends in a certain amount of rupiah for each share - or it can also be in the form of stock dividends which means that each shareholder is given a dividend of a number of shares so that the number of shares owned by an investor will increase with the distribution of the stock dividend.

LITERATURE REVIEW

In order to determine the originality and suitability for the journal, are there any elements of Research literature related to the determinants of the Dividend Payout Ratio , namely Samino Hendrianto (2017), states that the cash ratiohas a positive and significant effect on the dividend payout ratio, the return on assets and debt to equity ratio have a negative and significant effect on the dividend payout ratio. Eli Safrida (2014), states that profitability has a positive and significant effect on dividend policy, company growth has a positive but not significant effect on dividend policy. Zulkifli, Endri, Augustina Kurniasih (2017), state that the independent variables (current ratio, return on assets, debt to equity ratio, earning growth, return on equity, earnings per share and market to book value) are simultaneously able to form a fit model. to explain the variability of the dividend payout ratio. Partially, return on assets and market to book value have a significant positive effect on the dividend payout ratio, while the current ratio, debt to equity ratio and return on equity have a negative and significant effect. Earning growth and earnings per share have no significant effect on the dividend payout ratio. Monita Khoiriah, Moh Amin, Arista Fauzi Kartikasari (2020), stated that the average abnormal return (AAR) between before and during the COVID-19 pandemic affected the top 45 stocks on the Indonesia Stock Exchange (LQ-45). It is proved by the value of Sig. (2-tailed) of 0.000, which is less than 0.005. Pradana Jati Kusuma, Sri Hartoyo, & Hendro Sasongko (2016) in their research said that the dividend payout ratio was influenced by the return on assets, exchange rates, and oil prices, these three variables showed positive and significant results on the amount of dividend payout ratio

METHOD

This research uses quantitative methods. based on the formulation of the problem, framework of thought and hypotheses that have been described in the previous chapter. The data is processed using E-views 11.0 software. The data used is panel data, which is a combination of time series and cross section data. The sample used in this study is the financial statements of manufacturing companies in the mining sector in the 2017-2020 period listed on the Indonesia Stock Exchange, with the determination of the sample based on *non-probability sampling* with *purposive sampling technique*, namely the sample is selected with certain considerations and certain criteria. has been determined. From the 13 companies, each 4-year research period was taken, starting from 2017-2020 so that the total sample size was 13x4 = 52 years.

RESULT AND DISCUSSION

The population is all mining companies listed on the Indonesia Stock Exchange. The sample criteria are mining sector companies that consistently pay cash dividends. Based on the *non-probability* namely, *purposive sampling*, the Periods Included in this study are 4 years, namely the period 2017 to 2020. The *cross section value included* in this study is 13 companies. while the observation data (n) in this study were 52. Descriptive statistics describe the calculation of the average, median and maximum, minimum and standard deviation values of the research variables. Descriptive statistical calculations are presented in the following table:

Tabel *1* Statistik Deskriptif Test Result

	ROA	CR	DER	FCF	DPR	IOS
Mean	0.100500	1.939615	0.935923	5.684231	0.318288	0.080404
Median	0.081500	1.660000	0.665000	2.520000	0.185500	0.072000
Max	0.394000	6.310000	3.028000	55.69000	1.780000	0.508000
Min	-0.030000	1.000000	0.171000	-45.98000	0	-0.403000
Std. Dev	0.095388	0.941982	0.702682	13.31073	0.380696	0.156203

Source : Processed By Eviews.11 2021

The descriptive statistical values of the research variables are presented in table 4.2, namely: Investment Decision / *Investment Opportunity Set* (Y) From the descriptive statistical table, the IOS of 52 samples has an average value (mean) is 0.080404, the maximum IOS value is 0.508000, so it can give a positive signal to

investment opportunities, and the minimum IOS value is -0.403000, and from the table above it can be seen that the standard deviation is 0.156203, so it can be said that the data in this study has uniform data. or varied. *Return on Assets* , the amount of ROA from 52 samples has an average value (mean) of 0.100500, a maximum value of ROA of 0.394000 and a minimum value of ROA of -0.030000. This value can be interpreted that the company is able to generate a profit of minus 30%, because the ROA value is and From the table above, it can be seen that the standard deviation is 0.095388, so it can be said that the data in this study has varied data. From the descriptive statistical table, the CR of 52 samples has an average value (mean) of 1.939615, a maximum value of CR of 6.310000 and a minimum value of CR of 1.0000000 and from the table above it can be seen that the standard deviation of 0.94182 it can be said that the data in this study has varied data. The amount of DER from 52 samples has an average value (mean) of 0.935923, a maximum value of DER of 3.028000 and a minimum value of DER of 0.171000 which is owned and from the table above it can be seen that the standard deviation of 0.702682 it can be said that the data in this study has varied data. . The FCF of 52 samples has an average value (mean) of 5.684231, a maximum value of FCF of 55.69000 and a minimum value of FCF of -45.98000, and from the table above it can be seen that the standard deviation of 13.31073 can be said that the data in this study has uniform data. or not varied. The size of the DPR from 52 samples has an average value (mean) of 0.318288, the maximum value of the DPR is 1.780000, and the minimum value of the DPR is 0, and from the table above it can be seen that the standard deviation is 0.380696, so it can be said that the data in this study have uniform data. or not varied.

1. Numerical Result

Classical assumption test was conducted to determine the accuracy of the regression model. The classical assumption test is carried out so that the statistical coefficients obtained are truly accurate, unbiased, and efficient parameter estimators / referred to as BLUE *(Best Linear Unbiased Estimation)* according to Bambang & Rahmatika (2017). Classical assumption test was performed using *Eviews* 11.0 software.

1. Simultaneous Testing (F Test) Equation 1

Dependent Variable: IOS
Method: Least Squares
Date: 04/09/22 Time: 23:45
Sample: 1 52
Included observations: 52

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.054776	0.072154	0.759162	0.4515
ROA	1.046188	0.283151	3.694806	0.0006
CR	-0.019755	0.023977	-0.823905	0.4142
DER	0.084088	0.034609	2.429647	0.0190
FCF	-0.001808	0.001806	-1.001092	0.3219

R-squared	0.242941	Mean dependent var	0.080437
Adjusted R-squared	0.178510	S.D. dependent var	0.156137
S.E. of regression	0.141516	Akaike info criterion	0.981590
Sum squared resid	0.941265	Schwarz criterion	0.793970
Log likelihood	30.52133	Hannan-Quinn criter.	0.909661
F-statistic	3.770577	Durbin-Watson stat	1.986389
Prob(F-statistic)	0.009688		

Figure 1 Results of Multiple Linear Regression Analysis Against Variable Y
Source: data processed 2022

In the Eviews 11 application, the F test is indicated by the probability value of the F-statistic. Based on the test results above, the F-statistic has a value of 3.770577 or greater than the F_{table} of 2.57. While the probability value of F-statistics is 0.009688 or less than 0.05, so Ho is rejected and Ha is accepted. This means that the variables ROA, CR, DER and FCF together have a significant effect on IOS (Y) in the mining sector manufacturing listed on the Indonesia Stock Exchange for the 2017-2020 period. Thus Ha1 is proven.

Table 2 Test Results of Multiple Linear Regression Analysis Against Variable Y

Variabel	**Var Dependen: IOS**		**Kesimpulan**	**Keputusan**
	Coefficient	**Prob**		
Constanta	0.054776	0.4515		

ROA	1.046188	0.0006	Positif signifikan	Ha_1 diterima
CR	-0.019755	0.4142	Negatif tidak signifikan	Ha_2 ditolak
DER	0.084088	0.0190	Positif signifikan	Ha_3 diterima
FCF	-0.001808	0.3219	Negatif tidak signifikan	Ha_4 ditolak
Goodness of Fit Adj R^2 sebesar 17,85%				

Source: Results of data analysis using E-Views 11.0

Regression Equation 1:

Y = 1 + 1*ROA - 2*CR + 3*DER - 4*FCF

Y = 0.054776 + 1.046188* ROA – 0.019755*CR + 0.084088*DER - 0.001808*FCF

The coefficient of determination (adj R^2) of the *IOS* is 17.85%, meaning that the ability of the independent variable to explain *IOS* is only 17.85% while the rest is explained by other independent variables that not included in the model. It is concluded that statistically there are two independent variables in this study that affect *IOS* , namely ROA and DER in mining sector manufacturing companies listed on the Indonesia Stock Exchange in 2017-2020.

2. Partial Test (Testi t) Equation 1

Dependent Variable: IOS
Method: Least Squares
Date: 04/09/22 Time: 23:45
Sample: 1 52
Included observations: 52

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.054776	0.072154	0.759162	0.4515
ROA	1.046188	0.283151	3.694806	0.0006
CR	-0.019755	0.023977	-0.823905	0.4142
DER	0.084088	0.034609	2.429647	0.0190
FCF	-0.001808	0.001806	-1.001092	0.3219

R-squared	0.242941	Mean dependent var	0.080437
Adjusted R-squared	0.178510	S.D. dependent var	0.156137
S.E. of regression	0.141516	Akaike info criterion	0.981590
Sum squared resid	0.941265	Schwarz criterion	0.793970
Log likelihood	30.52133	Hannan-Quinn criter.	0.909661
F-statistic	3.770577	Durbin-Watson stat	1.986389
Prob(F-statistic)	0.009688		

Figure 3 Test Results Equation 1
Source: Results of data analysis using E-Views 11.0

a. Hypothesis ROA (X1) against IOS (Y)

The significance test performed on the independent variables can be seen from the p-value. From the regression results, it is found that with a significance level of 95% (α = 5%) with a $t_{table\ of}$ 2.01174, the ROA variable has a $t_{statistic\ of}$ 3.694806 and a p-value of 0.0006. Because the p-value < 0.05, then Ha is accepted. So it can be concluded that the ROA variable has an effect and is significant on IOS.

b. Hypothesis CR (X2) against IOS (Y)

The significance test performed on the independent variables can be seen from the p-value. From the regression results, it is found that with a significance level of 95% (α=5%) with a $t_{table\ of}$ 2.01174, the CR variable has a $t_{statistic\ of}$ -0.823905 and a p-value of 0.4142. Because the p-value > 0.05, then Ho is accepted. So it is concluded that the CR variable has no effect and is not significant on IOS

c. Hypothesis DER (X3) against IOS (Y)

The significance test performed on the independent variables can be seen from the p-value. From the regression results, it is found that with a significance level of 95% (α=5%) with a $t_{table\ of}$ 2.01174, the DER variable has a $t_{statistic\ of}$ 2.429647 and a p-value of 0.0190. Because p-value < 0.05, then Ha is accepted. So it can be concluded that the DER variable has a positive and significant effect on IOS.

d. Hypothesis FCF (X4) t against IOS (Y)

The significance test performed on the independent variables can be seen from the p-value. From the regression results, it is found that with a significance level of 95% (α = 5%) with a

$t_{table\ of}$ 2.01174, FCF variable has a $t_{statistic\ of}$ 1.001092 and a p-value of 0.3219. Because p-value > 0.05, then Ho is accepted. So it is concluded that the FCF variable has no effect and is not significant on IOS.

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3. Simultaneously Testing (F-Test) Equation 2

Dependent Variable: DPR
Method: Least Squares
Date: 04/10/22 Time: 00:14
Sample: 1 52
Included observations: 52

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.303555	0.197214	1.539220	0.1305
ROA	0.563573	0.773920	3.728205	0.0472
CR	0.018024	0.065535	0.275029	0.7845
DER	-0.065577	0.094595	-3.693246	0.0016
FCF	1.902723	0.274937	4.551564	0.0039

R-squared	0.048690	Mean dependent var	0.318291
Adjusted R-squared	0.232273	S.D. dependent var	0.380704
S.E. of regression	0.386799	Akaike info criterion	1.029387
Sum squared resid	7.031819	Schwarz criterion	1.217006
Log likelihood	21.76405	Hannan-Quinn criter.	1.101315
F-statistic	3.901387	Durbin-Watson stat	1.691257
Prob(F-statistic)	0.016349		

Figure 4 Results of Multiple Linear Regression Analysis on Variable z
Source: The results of data analysis using E-Views 11.0

In the Eviews 11 application, the F-test is indicated by the probability value of the F-statistic. Based on the test results above, the F-statistic has a value of 3.901387 or greater than the F_{table} of 2.57. While the probability value of F-statistics is 0.016349 or less than 0.05, so Ho is rejected and Ha is accepted. This means that the variables ROA, CR, DER and FCF together have a significant effect on DPR (Z) in the mining sector manufacturing listed on the Indonesia Stock Exchange for the 2017-2020 period. Thus Ha is proven..

Table 3 Test Results of Multiple Linear Regression Analysis Against Variable Z

Variabel	Var Dependen: IOS		Kesimpulan	Keputusan
	Coefficient	Prob		
Constanta	0.303555	0.1305		
ROA	0.563573	0.0472	Positif signifikan	Ha_6 diterima
CR	0.018024	0.7845	Positif tidak signifikan	Ha_7 ditolak
DER	-0.065577	0.0016	Negatif signifikan	Ha_8 diterima
FCF	1.902723	0.0039	Positif signifikan	Ha_9 diterima
Goodness of Fit Adj R^2 sebesar 23,22%				

Source: Results of data analysis using E-Views 11.0

Regression Equation 1:

$Y = \alpha 1 + \beta 1*ROA - \beta 2*CR + \beta 3*DER - \beta 4*FCF$

$Y = 0.303555 + 0.563573*ROA + 0.018024*CR - 0.065577*DER + 1.902723*FCF$

The coefficient of determination (adj R^2) of the *Dividend Payout Ratio* is 23.22%, meaning that the ability of the independent variable to explain the *Dividend Payout Ratio* is only 23.22% while the rest is explained by other independent variables that are not included in the model. It is concluded statistically that there are two independent variables in this study that affect the *Dividend Payout Ratio* , namely *Return On Assets, Debt To Equity Ratio* and *Free Cash Flow* in mining sector manufacturing companies listed on the Indonesia Stock Exchange in 2017-2020.

4. Pengujian Parsial (Uji t) Persamaan 2

Dependent Variable: DPR
Method: Least Squares
Date: 04/10/22 Time: 00:14
Sample: 1 52
Included observations: 52

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.303555	0.197214	1.539220	0.1305
ROA	0.563573	0.773920	3.728205	0.0472
CR	0.018024	0.065535	0.275029	0.7845
DER	-0.065577	0.094595	-3.693246	0.0016
FCF	1.902723	0.274937	4.551564	0.0039

R-squared	0.048690	Mean dependent var	0.318291
Adjusted R-squared	0.232273	S.D. dependent var	0.380704
S.E. of regression	0.386799	Akaike info criterion	1.029387
Sum squared resid	7.031819	Schwarz criterion	1.217006
Log likelihood	21.76405	Hannan-Quinn criter.	1.101315
F-statistic	3.901387	Durbin-Watson stat	1.691257
Prob(F-statistic)	0.016349		

Figure 5 Results of t-test Equation 2
Source: Results of data analysis using E-Views 11.0

a. Hypothesis *Return On Assets* (ROA) (X1) to *Divedend Payout Ratio* (DPR) (Z)

The significance test performed on the independent variables can be seen from the p-value. From the regression results, it is found that with a significance level of 95% (α = 5%) with a $t_{table\ of}$ 2.01174, the ROA variable has a $t_{statistic\ of}$ 3.728205 and a p-value of 0.0472. Because the p-value < 0.05, then Ha is accepted. So it can be concluded that the ROA variable has an effect and is significant on the DPR.

b. Hypothesis *Current Asset* (CR) (X2) to *Divedend Payout Ratio* (DPR) (Z)

The significance test performed on the independent variables can be seen from the p-value. From the regression results, it is found that with a significance level of 95% (α=5%) with a $t_{table\ of}$ 2.01174, the CR variable has a $t_{statistic\ of}$ 0.275029 and a p-value of 0.7845. Because the p-value > 0.05, then Ho is accepted. So it is concluded that the CR variable has no effect and is not significant to the DPR.

c. Hypothesis *Debt to Equity Ratio* (DER) (X3) to *Dividend Payout Ratio* (DPR) (Z)

The significance test performed on the independent variables can be seen from the p-value. From the regression results, it is found that with a significance level of 95% (α=5%) with a $t_{table\ of}$ 2.01174, the DER variable has a $t_{statistic\ of}$ -3.693246 and a p-value of 0.0016. Because p-value < 0.05, then Ha is accepted. So it can be concluded that the DER variable has a negative and significant effect on the DPR.

d. hypothesis *Free Cash Flow* (FCF) (X4) *Dividend Payout Ratio* (DPR) (Z)

The significance test performed on the independent variables can be seen from the p-value. From the regression results, it is found that with a significance level of 95% (α = 5%) with a $t_{table\ of}$ 2.01174, FCF variable has a $t_{statistic\ of}$ 4.551564 and a p-value of 0.0039. Because p-value > 0.05, then Ho is accepted. So it can be concluded that the FCF variable has a positive and significant effect on the DPR.

5. Simultaneous Testing (F-Test) Equation 3

Dependent Variable: IOS
Method: Panel Least Squares
Date: 04/10/22 Time: 00:39
Sample: 2017 2020
Periods included: 4
Cross-sections included: 13
Total panel (unbalanced) observations: 52

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.531121	0.105341	5.041923	0.0000
DPR	0.195240	0.191041	10.21982	0.0318

Root MSE	0.492371	R-squared	0.020870
Mean dependent var	0.450980	Adjusted R-squared	0.191888
S.D. dependent var	0.502543	S.E. of regression	0.502319
Akaike info criterion	1.499265	Sum squared resid	12.36391
Schwarz criterion	1.575023	Log likelihood	36.23125
Hannan-Quinn criter.	1.528214	F-statistic	3.044447
Durbin-Watson stat	1.087719	Prob(F-statistic)	0.011809

Figure 6 Results of Linear Regression Analysis of Variable Z to Variable Y
Source: data processed 2022

In the Eviews 11 application, the F-test is indicated by the probability value of the F-statistic. Based on the test results above, the F-statistic has a value of 3.044447 or greater than the F_{table} of 2.57. While the probability value of F-statistics is 0.011809 or less than 0.05, so Ho is rejected and Ha is accepted. This means that the DPR variable (Z) has a significant effect on IOS (Y) in the mining sector manufacturing listed on the Indonesia Stock Exchange for the 2017-2020 period.

Regression Analysis With Intervening Dividend Payout Ratio Variable

In this study, the Sobel test was used to test path analysis. The Sobel test was carried out using the danielsoper.com application to get the z value. The results of the Sobel test are shown in the following table:

Table 4 Sobel Test Results

Variabel Independen	Nilai		Nilai		Z
	A	SE_A	B	SE_B	
Return On Assets	0,5635	0,7739	0,1952	0,191	23,510
Current Ratio	0,018	0,0655	0,1952	0,191	0,089
Debt To Equity Ratio	-0,0655	0,0945	0,1952	0,191	-0,277
Free Cash Flow	1,9027	0,2749	0,1952	0,191	1,4238

Source: data processed 2022

Sobel test is a test to determine whether the mediating variable is capable of being a mediator in influence between variables. If the Z count > 1.98, it proves that the effect is significant and can mediate. Meanwhile, if the value of Z count < 1.98, then the effect is not significant and cannot mediate.

Validation

Effect *Return On Assets, Current Ratio, Debt To Equity Ratio and Free Cash Flow* on Investment Decisions in Mining Companies listed on the IDX for the 2017-2020 period

. Based on the results of multiple linear regression analysis in Figure 4.9 ROA, CR, DER, FCF 0.009688 and is below 0.05, this indicates Ho is rejected, so that all independent variables (ROA, CR, DER, FCF) simultaneously have a significant effect on the investment variable (IOS). The coefficient of determination *(Adjusted R-squared)* based on Figure 4.9 obtained a value of 0.1785 or 17.85 %. These results indicate that the variation in the value of investment decisions (IOS) is influenced by independent variables, namely ROA, CR, DER, FCF, while 82.15% of the variation in the value of investment decisions (IOS) is influenced by other factors.

The results of the effect of *Return On Assets*, *Current Ratio*, *Debt To Equity*, and *Free Cash Flow* on show that Return On Assets, Current Ratio, Debt To Equity, and Free Cash Flow simultaneously have a significant effect on the Investment Decision (IOS) variable.

2.2 Effect *Return On Assets* (ROA) on Investment Decisions in Mining Companies listed on the Indonesia Stock Exchange for the 2017-2020 period

. Based on the results of multiple linear regression analysis in Figure 4.9, ROA has a probability value of 0.0006, this value is below the significance level (0.05), so it can be concluded that the Return On Assets (ROA) indicator has a significant effect on investment (IOS). The coefficient on the ROA indicator shows the value (1.046188). A positive sign on this value indicates the movement of the ROA indicator in the direction of investment (IOS). The coefficient value indicates, for every increase in ROA by 1 unit while other independent variables are fixed, the investment (IOS) will increase by 1.046188. This research is also in line with that conducted by Saputro (2007), Chen *et al* (2010) which states that ROA has a positive and statistically significant effect on investment but on the other hand this research is not in line with research conducted by Karyati & Sudama (2020) which states that ROA has no significant effect on Investment Decisions

2.3 Effect *Current Ratio* (CR) on Investment Decisions in Mining Companies listed on the IDX for the period 2017-2020

Based on the results of multiple linear regression analysis in Figure 4.9, CR has a probability value of 0.4142, this value is above the significance level (0.05), so it can be concluded that the CR indicator has no effect on investment (IOS). The coefficient on the CR indicator shows the value (–0.019755). The minus value indicates the direction of movement of CR is opposite to investment (IOS). The number (–0.019755) shows that if the CR indicator increases by 1 unit while the other independent variables are fixed, then investment (IOS) will decrease by 0.019755. This research is in line with that conducted by Yendrawati & Adhianza (2013), Mun'im (2018) which states that CR has no effect on investment (IOS) but on the other hand

2.4 Effect *Debt to Equity Ratio* (DER) on Investment Decisions in Mining Companies listed on the IDX for the period 2017-2020

Based on the results of multiple linear regression analysis in Figure 4.9, DER has a probability value of 0.0190, this value is below the significance level (0.05), so it can be concluded that the DER indicator has a significant effect on investment (IOS). The coefficient on the DER indicator shows the value (0.084088). A positive sign on this value indicates the movement of the DER indicator in the direction of investment (IOS). The coefficient value indicates, for every 1 unit increase in DER while other independent variables are fixed, the investment (IOS) will increase by 0.084088. This research is in line with that conducted by Marisa Khartika Dewi and Tri Gunarsih (2021) who state that DER has a positive effect on investment (IOS)

Effect *Free Cash Flow* on Investment Decisions in Mining Companies listed on the IDX for the period

2017-2020 Multiple linear regression in Figure 4.9, FCF has a probability value of 0.3219, this value is above the significance level (0.05), so it can be concluded that the FCF indicator has no effect on investment (IOS). The coefficient on the FCF indicator shows the value (–0.001808). The minus value indicates the direction of the movement of the FCF against the investment (IOS). The number (–0.001808) shows that if the FCF indicator increases by 1 unit while the other independent variables are fixed, then investment (IOS) will decrease by 0.001808. This research is in line with research conducted by Rian Setiawan (2010) and Lusiana (2016) which states that FCF influences investment decisions.

The Effect *Return On Assets, Current Ratio, Debt to Equity Ratio and Free Cash Flow* on Dividend Policy in Mining Companies listed on the IDX for the 2017-2020 period

. is below 0.05, this indicates Ho is rejected, so that all independent variables (ROA, CR, DER, FCF) simultaneously have a significant effect on the dividend policy variable (DPR). The coefficient of determination *(Adjusted R-squared)* based on Figure 4.11 obtained a value of 0.2322 or 23.22%. These results show that the variation in the value of the dividend policy (DPR) is influenced by independent variables, namely ROA, CR, DER, FCF, while 76.78% of the variation in the value of the dividend policy (DPR) is influenced by other factors. These results are in line with research conducted by Novyarni (2019), Noor Salim & Aulia Syifa (2019) and Rusherlistyani *et al* (2017), which state that *Return On Assets*, *Debt To Equity Ratio*, and *Current Assets* together have an effect on policy. dividend.

Effect of ROA on Dividend Policy in Mining Companies listed on the Indonesia Stock Exchange for the period 2017-2020

Based on the results of multiple linear regression analysis in Figure 4.11, ROA has a probability value of 0.0472, this value is below the significance level (0.05), so it can be concluded that the ROA indicator has a significant effect on dividend policy (DPR). The coefficient on the ROA indicator shows the value (0.563573). A positive sign on this value indicates the movement of the ROA indicator is in line with the dividend policy (DPR). The coefficient value indicates, for every ROA increase of 1 unit while other independent variables are fixed, the dividend policy (DPR) will increase by 0.563573. The results of this study are also in line with

research conducted by Noor Salim & Syifa Aulia (2019), which states that Return On Assets (ROA) has a positive effect on the Dividend Payout Ratio (DPR).

Effect of *Current Ratio* (CR) on Dividend Policy in Mining Companies listed on the Indonesia Stock Exchange for the period 2017-2020

Based on the results of multiple linear regression analysis in Figure 4.11, *Current Ratio* has a probability value of 0.7845, this value is above the significance level (0.05)indicator *Current Ratio* has no effect on dividend policy (DPR). The coefficient on the *Current Ratio* shows the value (0.018024). A positive sign on this value indicates the movement of the *Current Ratio* with the dividend policy (DPR). The coefficient value indicates, for every increase in the *Current Ratio* by 1 unit while other independent variables are fixed, the dividend policy (DPR) will increase by 0.018024. This result is in line with research conducted by Wahyuni and Hafiz (2018), Lukita Dwi Purnamasari (2016) which states there is no effect of the *Current Ratio* (CR) on the *Dividend Payout Ratio* (DPR). Zulkifli, Endri, Augustina (2017) in their research stated that the *Current Ratio* affects the *dividend payout ratio* in a significant negative

The effect *Debt to Equity Ratio* on Dividend Policy in Mining Companies listed on the IDX for the period 2017-2020

Based on the results of multiple linear regression analysis on Figure 4.11, DER has a probability value of 0.0016, this value is below the significance level (0.05), so it can be concluded that the DER indicator has a significant influence on dividend policy (DPR). The coefficient on the DER indicator shows the value (-0.065577). The negative sign indicates the opposite movement between the DER indicator and the dividend policy (DPR). The coefficient value indicates that for every 1 unit increase in DER while other independent variables are fixed, the dividend policy (DPR) will decrease by 0.065577. These results are in line with research conducted by Agus Efendi which states that the *Debt Equity Ratio* (DER) has a negative effect on the *Dividend Payout Ratio* (DPR). Zulkifli, Endri, Augustina (2017) in their research stated that the *Debt to Equity Ratio* affects the *dividend payout ratio* significantly negatively.

Effect *Free Cash Flow* on Dividend Policy in Mining Companies listed on the Indonesia Stock Exchange for the period 2017-2020

Based on the results of multiple linear regression analysis in Figure 4.11, FCF has a probability value of 0.0039, this value is below the significance level (0.05), so it can be concluded FCF indicator has a significant influence on dividend policy (DPR). The coefficient on the FCF indicator shows the value (1.902723). A positive sign on this value indicates the movement of the FCF indicator is in line with the dividend policy (DPR). The coefficient value indicates that for every 1 unit increase in FCF while other independent variables are fixed, the dividend policy (DPR) will increase by 1.902723. Different research empirically supports this hypothesis, Sejati *et al* (2020), conducting research on manufacturing companies listed on the Indonesia Stock Exchange. The results of their research show that *Free Cash Flow* has a significant positive effect on dividend policy.

Effect of Dividend Policy on Investment Decisions as an intervening variable in mining companies listed on the Indonesia Stock Exchange for the 2017-2020 period

. Based on the results of multiple linear regression analysis in Figure 4.13, dividend policy (DPR) has a probability value (0.0318), this value is below significance level (0.05), so it can be concluded that dividend policy (DPR) has a significant effect on investment (IOS). The coefficient on dividend policy (DPR) shows the value (0.195240). A positive value indicates the movement of dividend policy (DPR) in line with investment (IOS). The coefficient value indicates that for every 1% increase in dividend policy (DPR), investment (IOS) will increase by 19.52%.

The results of the research in the Sobel test show that the indirect effect of Return On Assets, Current Ratio, Debt to Equity Ratio, and Free Cash Flow variables on investment (IOS) has an influence. So that the Dividend Payout Ratio variable can be an intervening variable. The coefficient of determination (*Adjusted R-squared*) based on Figure 4.13 obtained a value of 0.191 or 19.1%. These results indicate that the variation in investment value (IOS) is influenced by the dividend policy variable (DPR), while 80.9% of the variation in investment value (IOS) is influenced by other factors. These results are in line with research conducted by Syifa Aulia & Salim (2019) which states that there is a significant positive effect on investment decisions. In contrast to the results of research conducted by Gul and Kealey (1999) stated that the *Dividend Payout Ratio* (DPR) had a negative and significant effect on Investment Decisions (IOS) in 411 companies in Korea.

CONCLUSION

This study was conducted to examine the Dividend Payout Ratio Determinants and their impact on Investment Decisions in mining companies listed on the Indonesia Stock Exchange for the 2017-2020 case study. Based on the results of research that has been carried out through several tests that have been described previously, it is concluded that in accordance with the formulation of the problem and research objectives and the results of the analysis that has been carried out, the following conclusions are obtained, Based on the results of the F test in Figure 4.9, it is shown that the statistical probability produces a number of 0.009688 and is below 0.05, so simultaneously all independent variables (ROA, CR, DER, FCF) have a significant influence on investment decisions. Based on the significance value that the probability Roa is 0.00006 < 0.05, it can be concluded that ROA has a significant influence on investment decisions. This means that ROA with Investment Decisions (IOS) shows the movement of indicators in the same direction, meaning that if ROA increases, investment will increase. Based on the results of multiple linear regression analysis in table 4.9, CR has a probability value of 0.4142 > 0.05, so it can be concluded that there is no significance between the two, meaning that if the Current Ratio increases, the investment (IOS) will decrease. based on the results of multiple linear regression analysis in table 4.9, DER has a probability value of 0.0190, this value is below the significance of 0.05, so it can be concluded that there is a significant effect between the two. Results Based on multiple linear regression analysis, FCF has a probability value of 0.3219, this value is above the significance level (0.05), so it can be said that FCF has no effect on investment (IOS).

This value is above the 0.05 significance, so there is no significant effect between the two. Results Based on F in Figure 4.11, it is shown that Prpb-F Statistics produce numbers below 0.05, so that all variables (ROA, CR, DER, FCF) simultaneously have a significant effect on the dividend policy variable (DPR). The coefficient of determination based on Figure 4.11 obtained a value of 0.2322 or 23.22%. These results show that the variation of dividend policy is influenced by the independent variables ROA, CR, DER, FCF, while 76.78% is influenced by other factors.Results Based on multiple linear regression analysis, ROA has a probability value of 0.0472, this value is below the significance level (0.05), so that it can unlock the ROA indicator which has a significant effect on dividend policy (DPR). This shows that there is a positive relationship between the two. Results Based on the multiple linear regression analysis in Figure 4.11, CR has a probability value of 0.7845, this value is above the significance level (0.05), so it can guarantee that the CR indicator has no effect on dividend policy (DPR). Based on the results of multiple linear regression analysis in Figure 4.11, DER has a probability value of 0.0016, this value is below the significance level (0.05), so it can guarantee that the DER indicator has a significant influence on dividend policy (DPR). Results Based on the Sobel test to analyze the indirect effect of independent variables simultaneously Return On Assets, Current Ratio, Debt to Equity Ratio, and Free Cash Flow on investment (IOS) through Didiven Payout Ratio have an effect..

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